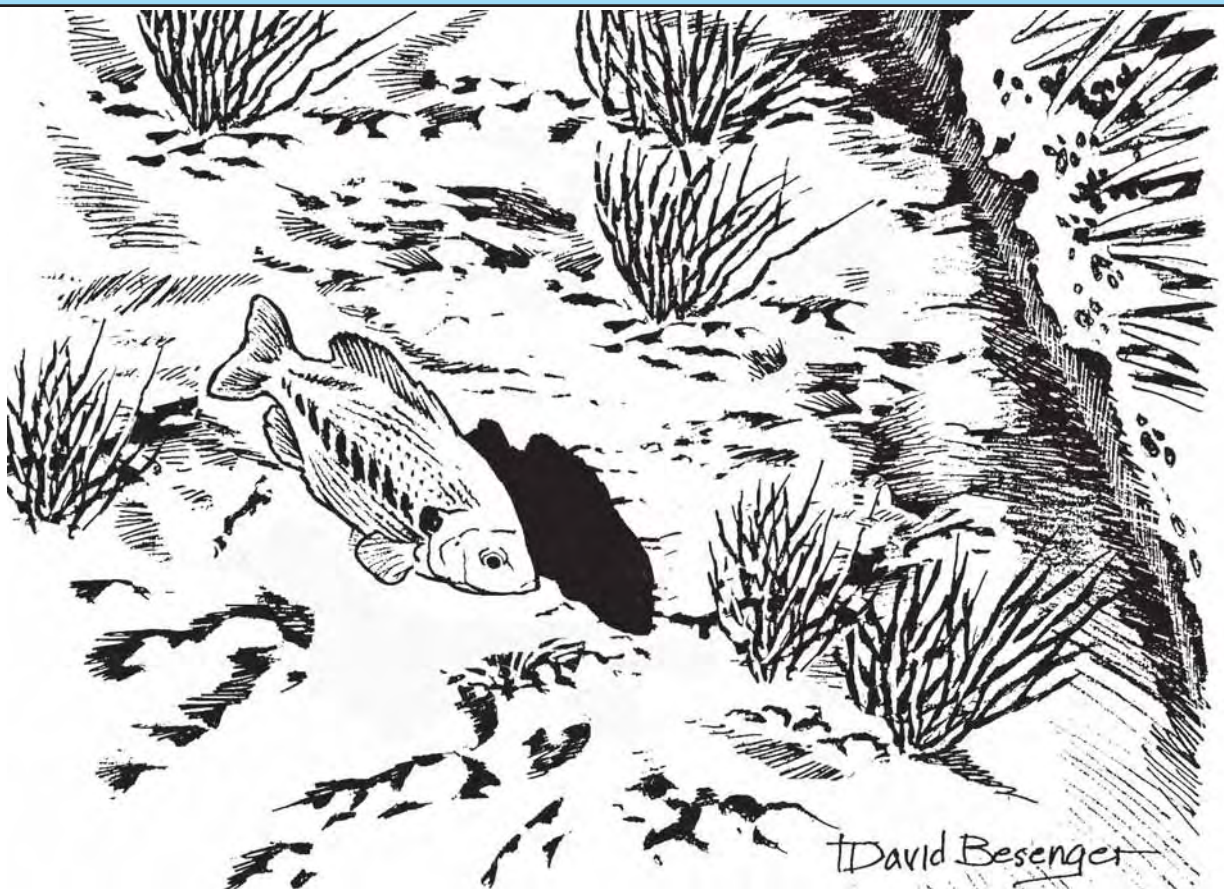
AQUAGUIDE
MISSOURI DEPARTMENT OF CONSERVATION

Hybrid Sunfish in Ponds



Hybrid sunfish, a genetic cross between two sunfish species, provide an opportunity to enhance fishing in many ponds. Under the right conditions, hybrid sunfish can grow faster and larger, and tend to be more-easily caught than their non-hybrid parent species. Adult hybrids may exceed a length of 11 inches and weigh more than a pound. These characteristics often make hybrid sunfish an attractive option; however, misconceptions about these fish have led to disappointing results. Performance appears dependent on a few factors, including: 1) the existing fish population, 2) stocking rate, 3) harvest rates 4) productivity of the pond and 5) supplemental feeding.

Description

The sunfish family includes 30 different species in North America. Popular species in Missouri include various bass, bluegill, redear sunfish, and crappie. Over twenty different combinations of hybrid sunfish have been discovered in the wild. Natural hybridization can occur between sunfish species with similarities in spawning habitat and behaviors; however, hybrids generally comprise a low percentage of wild populations.

Hybrid sunfish sold commercially are reared in hatcheries. Most commonly, male bluegill are crossed

with female green sunfish and physical characteristics of both species are exhibited in the hybrid offspring. Behavior of these hybrids tends to be more aggressive than either parent species, making them competitive feeders with higher growth rates ("hybrid vigor"), and more vulnerable to anglers. For genetic reasons, virtually all hybrids are male. Therefore reproduction by hybrid sunfish is very limited and is nearly always the result of mating to either bluegill or green sunfish.

Common Misconceptions

Although hybrid sunfish may be a good addition to some ponds, they are often stocked for the wrong reasons. Below are examples of some common misconceptions (italics), and the reasons why they are often inappropriate:

1) *"It's okay to stock hybrid sunfish instead of bluegill in my pond."* Hybrid sunfish should not be used as a substitute for a forage species such as bluegill, especially in new ponds. Bluegill reproduction provides the necessary forage (small bluegill) for predator species such as bass.
Reproduction by hybrid sunfish is very limited and insufficient to maintain reasonable growth and condition for larger predators.

2) *"Stock hybrids if your bluegill are not growing large."* Slow-growing or "stunted" bluegill will not grow to a large size (> 7") because their over-abundance has resulted in extreme competition for food. The addition of hybrid sunfish only compounds the problem, as they compete for the same food resources as bluegill, and it will not produce larger fish. Rather, management that promotes harvest of bluegill and predation by bass is often an effective approach.

3) *"Adding hybrids to my pond will increase growth and sizes of bass."* Again, low reproductive rates by hybrid sunfish will only limit forage available to bass. An increased harvest of bass may be appropriate to decrease competition and improve growth.

Ponds Best-Suited for Hybrids

Smaller ponds with good fish habitat, yet without other fish species (or only catfish), probably offer the best potential for hybrid sunfish. In these ponds, exceptional hybrid growth may be maximized, and the fish population managed through simple changes in stocking and harvest. Any small ponds used for kids' fishing clinics, or those maintained for "the grandchildren" and other sunfish enthusiasts, may be good candidates for hybrid sunfish.

Supplemental feeding may be required to realize benefits from stocking hybrid sunfish with established bass, bluegill, and catfish populations. Hybrid growth will be promoted by feeding floating fish pellets, available at most feed stores. Daily feeding in the same location(s) appears to be effective, while feeding once or twice a week have often shown poor results. Feeding works best at sites with water depths of at least 4 feet and when water temperatures are between 50 and 85 degrees. Feeding should not exceed 10 pounds of pellets per acre and only feed the amount eaten (completely) in 15 minutes. Stop feeding when the fish are not eating.

Stocking

Ponds with no fish, or only catfish, may be stocked with 1-2-inch hybrid sunfish at a recommended rate of 150-200 per surface acre. When stocking new ponds in combination with bass, bluegill, and channel catfish, hybrid sunfish may replace up to 15% of the bluegill. Remember, complete replacement of bluegill (with hybrids) is not advised in new ponds, if bass are also stocked.

Ponds with established fish populations may be stocked with hybrid sunfish at a recommended rate of 50 per surface acre. Stocked hybrids should be four inches or longer to minimize predation by bass.

Periodic stocking will be required to maintain good hybrid sunfish due to their limited reproduction and tendency for the loss of hybrid vigor through cross-breeding. Stocking frequency and rates will depend on your harvest and feeding capabilities.

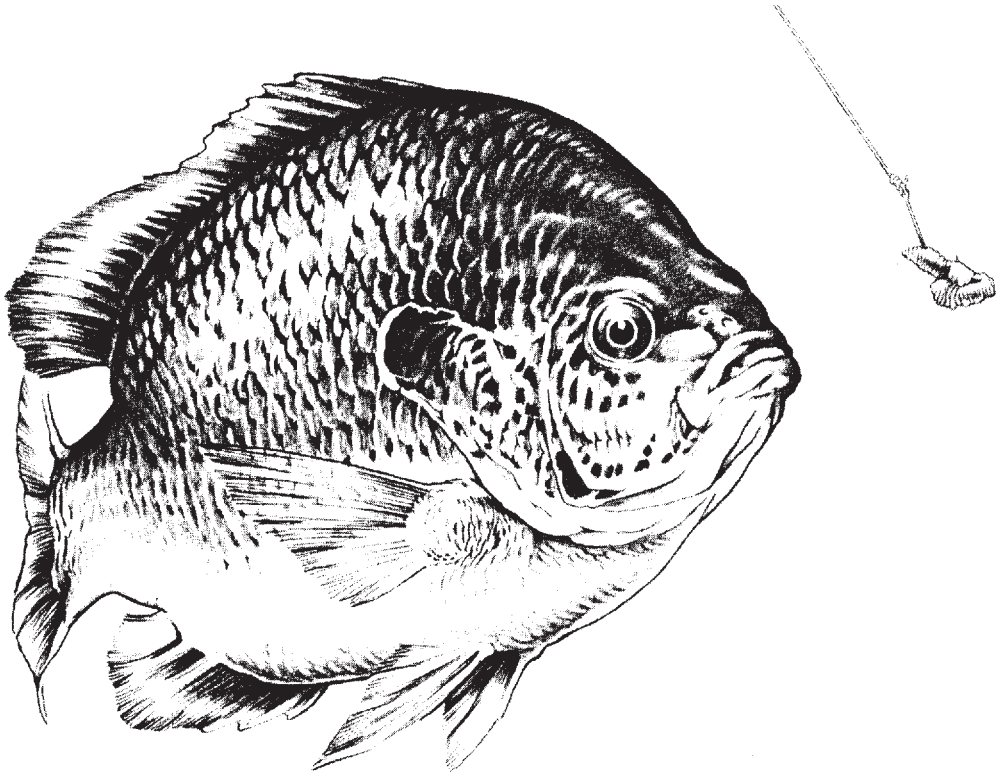
Fishing for Hybrids

Hybrid sunfish are very aggressive and vulnerable to a variety of angling tactics. Most baits used for bluegills also work well for hybrids. Effective artificial gear may include small jigs, spinners, flies, and poppers. Natural baits such as worms, crickets, and grasshoppers also work very well.

Harvest hybrids as you like. When catch rates decline noticeably, it's time to replenish your supply by restocking. Keeping records of your harvest will help evaluate your stocking needs.

Sources

You can often buy hybrid sunfish through local feed or farm supply stores during their advertised "fish days", or you may purchase them directly from commercial fish dealers. The Missouri Department of Conservation (MDC) does not sell hybrid sunfish or distribute through the pond stocking program; however, MDC can provide a list of commercial fish dealers which offer hybrids. For this information, write: Missouri Fish Dealers List, Division of Fisheries, Missouri Department of Conservation, Box 180, Jefferson City, MO 65102-0108, call 573/751-4115 or visit our web site at, www.conservation.state.mo.us.



Supplemental Feeding

Supplementally feeding sunfish to increase growth rates is highly recommended, especially in the Ozark portions of southern Missouri, where pond fertility is low. When supplementally feeding sunfish keep the following recommendations in mind:

- Floating fish food containing at least 25% protein, should be used. Floating food allows you to monitor food consumption in case disease or oxygen problems develop.

- Do not over-feed the fish! Feed an amount that is consistantly consumed in 15 to 20 minutes.

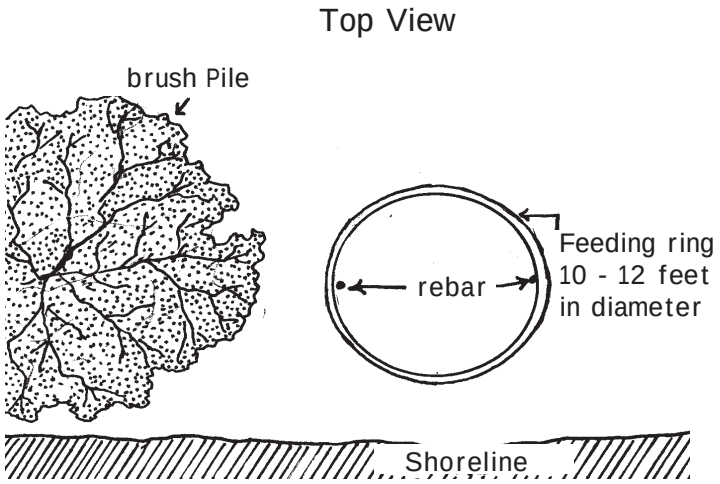
- Feed fish from May 1 to October 1. Discontinue feeding if the water temperature is lower than 50 degrees or greater than 85 degrees.

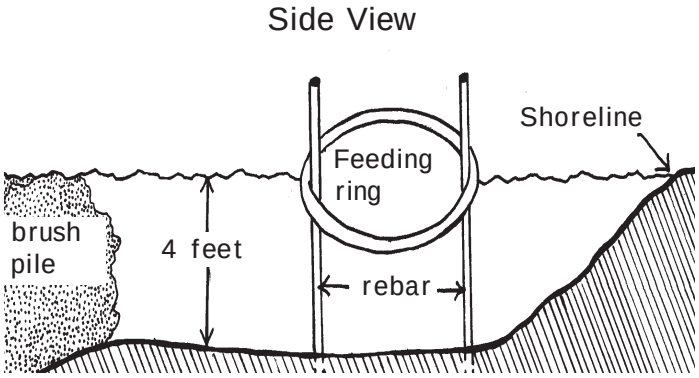
- Feed fish once a day five to seven times a week to maintain maximum growth.

- Feed fish the same time each day. Feeding bluegill during the evening is suggested.

- Feed fish in the same place every day with the use of feeding rings (graphics at right). Feeding rings, which are PVC pipe structures used to hold floating fish food in one location, should be placed in at least 4 feet of water next to brushpiles. Use one feeding ring per acre of water.

- If only a few fish or none come up to feed when previously they had been feeding regularly, stop feeding at once. Problems, such as disease or low oxygen conditions, can cause fish to stop feeding and should be investigated and corrected before resuming the feeding schedule. Fish seen "gasping" at the surface suggest low oxygen levels. You are most likely to see such behavior in the morning just after sunrise. You must start some type of aeration immediately to keep your fish from dying. Contact your local Fisheries Regional Office for technical advice.





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